

WHAT IS CLAIMED IS:

- 1 1. A method of draining a fluid system comprising:
2 fluidly connecting a drainage wand to a first upper port of a service apparatus;
3 sealably connecting the service apparatus with a reservoir;
4 inserting the drainage wand into a service port of a fluid system; and
5 applying a reduced pressure to a second upper port of the service apparatus to
6 withdraw fluid from the fluid system into the reservoir.
- 1 2. The method of claim 1, wherein the reservoir includes an internal volume and
2 a pressure regulator.
- 1 3. The method of claim 2, wherein the pressure regulator is a pressure relief
2 valve a pressure relief valve operable to vent the internal volume when a pressure in
3 the internal volume decreases below a threshold value.
- 1 4. The method of claim 1, wherein the service port is an orifice of a radiator of a
2 cooling system.
- 1 5. The method of claim 2, wherein the service apparatus comprises:
2 a body including a first lower port fluidly connected to a first upper
3 port by a first channel; and
4 a sealing member on the body configured to sealably connect the
5 service apparatus with the reservoir.
- 1 6. The method of claim 5, wherein the first upper port includes a valve.
- 1 7. The method of claim 5, wherein the service apparatus includes a second lower
2 port fluidly connected to a second upper port by a second channel and a valve
3 proximate to the second channel that stops fluid flow in the second channel when
4 fluid enters the second lower port.
- 1 8. The method of claim 5, wherein the sealing member comprises a resilient
2 material.

- 1 9. The method of claim 5, wherein the sealing member forms a sealing surface
2 perpendicular to the first channel.
- 1 10. The method of claim 5, wherein the sealing member is a connector including a
2 sleeve made of resilient material surrounding the body, the sleeve forming a seal
3 between the service apparatus and the service port.
- 1 11. The method of claim 10, wherein the service apparatus further includes a
2 sleeve compressor external to the body and in contact with the sleeve.
- 1 12. The method of claim 5, wherein the service apparatus further includes a
2 pressure-reducing source fluidly connectable to the second upper port.
- 1 13. The method of claim 1, wherein reduced pressure is applied with a venturi.
- 1 14. The method of claim 3, wherein the pressure relief valve comprises:
2 a cylindrical body having an outer wall, an inner wall, and a channel fluidly
3 connecting a first port and a second port;
4 a poppet within the body biased to close the channel, the poppet opening the
5 channel when the pressure in the internal volume decreases below the threshold
6 value; and
7 a vent control knob threadably attached to the first port and capable of
8 engaging and opening the poppet.
- 1 15. The method of claim 1, wherein the drainage wand has a sufficient diameter
2 and length to enter the service port.
- 3 16. A method of draining a fluid system comprising:
4 sealably connecting a service apparatus with a reservoir, the service apparatus
5 being fluidly connected to the fluid system and the reservoir including an internal
6 volume and a pressure regulator; and
7 applying a reduced pressure to a second upper port of the service apparatus to
8 withdraw fluid from the fluid system into the reservoir.

1 17. The method of claim 16, wherein the pressure regulator is a pressure relief
2 valve operable to vent the internal volume when a pressure in the internal volume
3 decreases below a threshold value.

1 18. The method of claim 16, wherein the service port is an orifice of a radiator of
2 a cooling system.

1 19. The method of claim 16, wherein the service apparatus comprises:
2 a body including a first lower port fluidly connected to a first upper
3 port by a first channel; and
4 a sealing member on the body configured to sealably connect the
5 service apparatus with the reservoir.

1 20. A method of draining a fluid system comprising:
2 sealably connecting a service apparatus with a reservoir, the service apparatus
3 including a drainage wand to a first upper port of the service apparatus, and the
4 reservoir including an internal volume and a pressure regulator and a sealing member
5 on the body configured to sealably connect the service apparatus with the reservoir,
6 the pressure regulator being a pressure relief valve operable to vent the internal
7 volume when a pressure in the internal volume decreases below a threshold value;
8 inserting the drainage wand into a service port of a fluid system; and
9 applying a reduced pressure to a second upper port of the service apparatus to
10 withdraw fluid from the fluid system into the reservoir.